

ENGR 3323: Signals and Systems

HW 3_Ch2 Answer Keys

1) $y(t) = [-1.5e^{-4t} + 3.5e^{-2t}]u(t)$

2) $y(t) = [-te^{-3t}]u(t)$

3) $y(t) = -e^{-2t} \cos(2t + \pi) u(t)$ or $y(t) = e^{-2t} \cos(2t) u(t)$

4) $y_n(t) = e^{-2t} - e^{-3t}$ $h(t) = [e^{-3t}]u(t)$

5) $y_n(t) = -0.5e^{-3t} + 0.5 e^{-t}$ $h(t) = \delta(t) + [-5.5e^{-3t} + 1.5 e^{-t}]u(t)$